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THE STATUS OF CERTAIN SUPPOSED SPECIES OF
THE GENUS *LARUS*.

BY WILLIAM H. KOBBE.

THE genus *Larus* is one of the five or six genera into which the subfamily Larinæ is divided. This subfamily, together with the subfamily Sterninæ (which we may almost call artificial divisions) constitute the family Laridæ, or the Gulls and Terns, of which the Larinæ are the Gulls and the Sterninæ the Terns. This is by far the largest of the three families constituting the order Longipennes or long-winged swimmers. The genus *Larus* contains about twenty-one American species, which show a great variability in size and coloration of certain parts, so connected, however, by intermediate forms that systematists are unable to base generic distinctions upon these differences. So the many species still comprise one genus, in which the specific value of the birds and their complicated changes of plumage demand much further study.

In speaking of Gulls it may be well to recall the words of Dr. Coues: "Several circumstances conspire to render the study of these birds difficult. With some exceptions, they are almost identical in form; while in size they show an unbroken series. Individual variability in size is high; northerly birds are usually appreciably larger than those of the same species hatched further south; the ♂ exceeds the ♀ a little (usually); very old birds are likely to be larger, with especially stouter bill, than young or middle-aged ones. There is, besides, a certain plasticity of organization, or ready susceptibility to modifying influences, so marked that the individuals hatched at a particular spot may be appreciably different in some slight points from others reared but a few miles away. One pattern of coloration runs through nearly all the species; they are *white*, with a darker mantle (*stragulum*), and in most cases with black crossing the primaries near the end, the tips of the quills white. The shade of the mantle is very variable in the same species, according to climate, action of the sun, friction, and other causes; the pattern of the black on the quills is still more so, since it is *continually* changing with age, at least until a final stage is reached. Incredible as it may appear,

species and even genera have been based upon such shadowy characters. One group of species has the head enveloped in a dark hood in the breeding season, the under parts tinted with peach-blossom hue. The sexes are always alike; the moult appears to be twice a year, so that a winter plumage more or less different from that of summer results; while the young are never like the old. The change is slow, generally requiring 2-3 years; in the interim, birds are found in every stage. They are always *darker* than the old, often quite dusky; usually with black or flesh-colored bill; and if with black on the primaries when adult, the young usually have these quills all black. There being no peculiar extra-limital species, those of our country give a perfect idea of the whole group. Some 75 species are current; there are certainly not over 50 good ones.”¹

From a large number of birds freshly killed and a series of skins, I have come to the conclusion that specific distinction does not exist between *Larus argentatus* (Brünn.) and *Larus vegæ* (Palmén). In attempting to prove this we must first clearly separate the American bird, *Larus vegæ* (Palmén), and the European *Larus cachinnans* (Pall.), which American ornithologists seem unable to do satisfactorily.

Dr. Coues, in describing *Larus vegæ* under the name of *cachinnans*, says: “Size, proportions of parts, pattern of primaries, etc., as in a common Herring Gull. Feet yellow (not flesh-color); ring around eye in the breeding season orange-red (not yellow). Mantle *dark bluish* and *much* darker than that of *argentatus*, yet not slate-colored as in *occidentalis*.”²

Mr. Ridgway in his ‘Manual’ describes *Larus vegæ* as follows: “Mantle plumbeous-gray, or very deep pearl-gray; eyelids (in life) orange-red, and feet yellow.”

These descriptions suit the European bird *Larus cachinnans*, but all American publications which I have examined describe *Larus vegæ* as having yellow feet, which according to the original description it has not. Dr. L. Stejneger noted this point in referring to the original description of *Larus vegæ* by Professor Palmén. In ‘The Auk,’ Vol. V, page 310, he says: “On page 370

¹ Key to N. Am. Birds, pp. 740, 741.

² *Op. cit.*, p. 744.

Prof. Palmén describes a new subspecies of the Herring Gull as *Larus argentatus* var. *vegæ*, 'characterized by a particularly dark gull-gray mantle and flesh-colored legs,' from the countries bordering on Bering Sea and adjacent waters. There is no doubt in my mind that this is the bird which North American ornithologists (including A. O. U. Check-List) call *Larus cachinnans* 'Pallas,' and I have always had a suspicion that the color of the feet of this bird as given in North American publications was erroneous, it being in most cases stated to be yellow, and my suspicion has been confirmed by the fact that Mr. P. L. Jouy in his MS. catalogue gives the color of the feet of two specimens from Japan (Jouy, Nos. 1030, 1031) otherwise indistinguishable from *L. cachinnans* Auct. Amer. as 'very pale flesh-color.' The Mediterranean bird, on the other hand, is known to have yellow feet, and as Pallas describes his *L. cachinnans* as having 'pedes pallide flavescentes' (Zoogr. Ross. As., II, p. 319), with the principal habitat 'Mare Caspium,' while he does not mention it as occurring in the Pacific, it seems as if Palmén were right in giving the form from the North Pacific a new name. I am not prepared, however, to accept as yet a trinomial appellation, as the true status and relationship of the present Gull are not well established, and propose to recognize it as *Larus vegæ* (Palmén)."

My own observations on freshly killed birds have always shown them to possess flesh-colored and not yellow legs. *Larus cachinnans* of Europe has yellow feet, as is seen not only in the original description, but in 'Notes on Avifauna of Italy' by Henry H. Giglioli, which appeared in 'The Ibis' for April, 1881, p. 219, where he says: "The adults in all seasons have the head and neck pure white without any trace of brown specks, and legs and feet of a bright yellow."

From the foregoing facts we must conclude that *Larus vegæ* has flesh-colored feet and *Larus cachinnans* yellow feet, which characters separate them at once.

The British Museum Catalogue gives the following descriptions of the two birds. In speaking of *Larus cachinnans* on page 268 of Vol. XXV, it says: "*Adult in breeding plumage* very similar to the preceding, from which, in fact, it differs only in the following particulars:—The ring round the eye is bright orange-red, the gape

is the same colour, the yellow and red of the bill are much brighter, the tarsi and toes are brilliant yellow; the mantle is, as a rule, decidedly darker, while the black and gray on the primaries show a deeper tone, and the middle toe with the nail is usually rather shorter than the tarsus.

“The *female* is smaller than the male as a rule.

“*Adult in winter.* As in summer; the usual greyish striations being absent, or so faint as to be practically invisible.

“*Immature, Young, and Nestling.* As in *L. argentatus*. The tarsi and toes are at first flesh-coloured, but they soon begin to show a yellowish tint in the live bird, though this is of course, lost in preserved specimens.

“*Hab.* Southern Europe, from the Gulf of Gascony downwards; Madeira (probably the Azores), the Canaries, and the opposite coast of Africa; the entire basin of the Mediterranean, the Black sea, the Aral, the Caspian and eastward to Lake Baikal (breeding). In winter to India, from the bay of Bengal to Bombay; the Mekran coast; Persia; the Red sea; and down the west side of Africa, apparently to Angola.”

The description of *Larus vegæ* which is found in Vol. XXV, pp. 270–271, and which in my opinion gives the bird one of its true characters is as follows: “*Adult male in breeding-plumage.* Differs from *L. cachinnans* in the colour of its tarsi and toes, which are pale flesh-colour, and the mantle is, perhaps, of a darker and bluer grey.

“*Obs.* It will be seen that *L. argentatus*, *L. cachinnans* and *L. vegæ* are very closely allied. There appears however, to be a somewhat important break of continuity; *L. argentatus* stopping at the White Sea, and no large Gull with black-patterned primaries being found to the eastward, till the Taimyr peninsula is reached.”

From my own observations and the foregoing descriptions we may clearly separate *Larus cachinnans* and *Larus vegæ* by the difference in color of the feet; the former having bright yellow feet and the latter flesh-colored. But in doing this we invalidate one of the supposed specific distinctions existing between *Larus vegæ* and *Larus argentatus*, since both are now seen to possess flesh-colored legs. There now remain but two characters said to separate these birds; the color of the mantle and the color of the orbital ring.

The color of the mantle is said to be of a lighter shade in *Larus argentatus* than in *Larus vegæ*. The orbital ring of *Larus argentatus* is said to be yellow, while that of *Larus vegæ* is orange-red. Are these not very indefinite and variable characters on which to base a separation of species in a genus which is known to possess individuals easily influenced by external conditions giving rise to many shades of color in the same bird?

In the series of the California Academy of Sciences the mantles of these birds show every intermediate shade from the darkest to the lightest. My birds likewise have many intermediate shades which cannot be called either light *argentatus* or dark *vegæ*. We cannot therefore separate the two by so variable a character as the shade assumed by the mantle, and the only remaining difference exists in the color of the orbital rings.

From the colors noted on freshly killed adult birds collected by me during the months of December, January, March, and April, 1900-01, I find that the color of the orbital ring is not to be relied upon, as it is seldom the same, being generally black or flesh-colored. This series of birds was collected on San Francisco Bay, from their arrival to their departure. During March and April, just before their departure, the birds assumed their breeding dress, but this circumstance does not enable one to separate the two, as the color of the orbital rings does not change. The feet also remain flesh-colored.

Of the many birds shot (the colors being noted) I preserved fourteen specimens and these, together with the series of the California Academy of Sciences of about twenty adult birds, formed an excellent basis for the study of variability in coloration and the constancy of ascribed characters.

The following table gives the colors as noted in the freshly killed birds now in my collection.

Locality.	Date and Sex.	Color of Feet.	Color of Orbital Ring.
San Francisco Bay	Dec. 7, 1900 ♂	Flesh color	Flesh-color.
" " "	Dec. 9, 1900 ♀	"	Dusky orange-red.
" " "	" " " ♀	"	Blackish
" " "	Dec. 18, 1900 ♀	"	Reddish flesh-color.
" " "	Dec. 27, 1900 ♀	"	Not taken.
" " "	" " " ♀	"	Blackish.
" " "	" " " ♀	"	Flesh-color.
" " "	" " " ♀	"	"
" " "	Jan. 18, 1901 ♀	"	Very pale and indefinite color.
" " "	" " " ♀	"	Reddish flesh-color.
" " "	Jan. 19, 1901 ♀	"	Dusky flesh-color.
" " "	Feb. 2, 1901 ♀	"	Flesh-color.
" " "	Feb. 8, 1901 ♀	"	"
" " "	" " " ♀	"	"
" " "	April 8, 1901	"	Dusky flesh-color.
" " "	April 17, 1901	"	Flesh-color.

In the light of these facts it appears that *Larus vegæ* is indistinguishable from *Larus argentatus*, and as the latter has the priority I propose that *Larus vegæ* be dropped from our nomenclature.

BIRDS OF THE NORTHEASTERN COAST OF LABRADOR.

BROWN-HARVARD EXPEDITION OF 1900, UNDER THE LEADERSHIP
OF PROFESSOR DELABARRE.

BY HENRY B. BIGELOW.

THE OBSERVATIONS noted in the following list were made on the Brown-Harvard Labrador expedition of 1900. The area embraced was that portion of the eastern coast from Belle Isle, Lat. $51^{\circ} 53'$, to Nachvak Fiord, Lat. 59° . The birds noted are strictly those of the immediate coast region, for we did not penetrate much farther into the interior than the heads of the bays.